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ABSTRACT

A study examined the uncertainty levels and types reported by supervisors and employees at three hierarchical levels of an organization: first-line supervisors, full-time employees, and part-time employees. It investigated differences in uncertainty-reduction strategies employed by these three hierarchical groups. The 61 subjects who completed surveys included employees and supervisors of a local restaurant franchise in the midwest which had recently undergone several organizational changes due to the sale of a major portion of its franchise to a national corporation. Results indicated that hierarchical differences did exist in task uncertainty, but not in organizational or relational uncertainty. In addition, the three groups were generally more Action-type than Inaction-type oriented in their selection of reduction strategies. There were no significant differences between groups regarding strategy selection for task uncertainty. However, part-time employees and supervisors differed in their selection of strategies for reducing organizational uncertainty, and full-time employees and supervisors differed in their selection of strategies for reducing relational uncertainty. (Six tables of data are included; 48 references are attached.) (Author/SR)

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UNCERTAINTY IN THE WORK-PLACE: HIERARCHICAL DIFFERENCES OF UNCERTAINTY LEVELS AND REDUCTION STRATEGIES

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Abstract

UNCERTAINTY IN THE WORK-PLACE: HIERARCHICAL DIFFERENCES OF UNCERTAINTY LEVELS AND REDUCTION STRATEGIES

This study examined the uncertainty levels and types reported by supervisors and employees at three hierarchical levels of the organization: first-line supervisors, full-time employees, and part-time employees. It investigated differences in uncertainty-reduction (UR) strategies employed by these three hierarchical groups. The subjects (n=61) included employees and supervisors of a local restaurant franchise in the midwest which had recently undergone several organizational changes due to the sale of a major portion of its franchise to a national corporation. The results of the study indicated that hierarchical differences did exist in task uncertainty, but not in organizational or relational uncertainty. In addition, the three groups were generally more Action-type than Inaction-type oriented in their selection of reduction strategies. There were no significant differences between groups regarding strategy selection for task uncertainty. However, part-time employees and supervisors differed in their selection of strategies for reducing organizational uncertainty, and full-time employees and supervisors differed in their selection of strategies for reducing relational uncertainty. The study concluded with a call for future studies to focus on what specific elements of the hierarchy may be contributing to these differences.

UNCERTAINTY IN THE WORK-PLACE: HIERARCHICAL DIFFERENCES OF UNCERTAINTY LEVELS AND REDUCTION STRATEGIES

•Bernie is a part-time employee at *THE Company*. Since he only works at nights, he is not in the main flow of information. As a result, he is often unsure about changes occurring in organizational policy and operating procedures from day to day.

•Jack is a full-time employee. He has performed the same duties at *THE Company* for years. He now has a new supervisor. Though Jack has tried to get to know her, he finds her "distant", defensive, and unpredictable.

•Debra was recently appointed manager of a new department being formed at *THE Company*. She has been manager in other departments before, but finds her new job full of details and complex decision-making processes.

The three persons mentioned above in this hypothetical company are experiencing elements of uncertainty in the work-place--uncertainty about the organization for which they work, the relationships they encounter, and the daily tasks they perform. Implicit in these three elements of uncertainty is the notion of effects on members throughout the hierarchy of the organization. Historically, scholars have investigated the impact of uncertainty on such areas as member behavior (Weick, 1979), organizational functioning (Duncan, 1972), and structural dimensions (Leifer & Huber, 1977) of the organization. Despite these efforts, a definitive explanation of the elements of uncertainty and conclusive findings relative to it remain elusive.

A number of reasons for exploring uncertainty reduction in the organizational setting are apparent in the current literature. First, there is a lack of clear theoretical direction about the behavioral implications of uncertainty within the

organizational setting. In general, literature regarding uncertainty research is often inconclusive, spurious, and even contradictory (Hannaway, 1985). In some research circles, this area of research has been euphemistically labeled "The Uncertainty of Uncertainty" (See Note 1).

Second, there are numerous implications regarding uncertainty levels on organizational members. Weick (1979) maintained that an employee's overall satisfaction on the job is determined by the extent to which he or she reduces equivocality. Some scholars have suggested the same is true for levels of uncertainty and employee satisfaction (Hecht, 1978; Spiker & Daniels, 1981). Others have found that uncertainty lowers one's ability to exercise control in a situation and decreases the probabilities that a person will obtain his or her goals in the interaction (Berger & Bradac, 1982). Moreover, Rossi and Lubbers (1988) identified uncertainty as the greatest occupational stressor in the work-place. In their study, employees ranked *uncertainty* as first among 18 other stress-related variables in the organizational setting. They concluded that a more detailed examination of the ways employees can reduce the impact of uncertainty through coping strategies was needed.

Finally, there is evidence to suggest communication is an important aspect of creating or alleviating uncertainty on the job. In fact, some communication scholars have maintained that the principle function of organizational communication is the reduction of uncertainty (e.g., Farace, Monge, & Russell, 1977). They noted that communication can be used by organizational members to reduce variability in the environment; that is, to achieve elements of control. It

follows that an exploration into the use of uncertainty reduction strategies may yield important discoveries regarding the effectiveness of such strategies.

We argue that understanding uncertainty and subsequent uncertainty reduction behavior is requisite to studying communication phenomena within the organization. Therefore, the nature of the present study on uncertainty is decidedly broad and exploratory. As such, the purpose is two-fold. First, it compares and contrasts the uncertainty levels reported by supervisors and employees at three hierarchical levels of the organization: first-line supervisors, full-time employees, and part-time employees. Second, the study investigates differences in uncertainty-reduction (UR) strategies employed by these three hierarchical groups.

TYPES OF UNCERTAINTY

Uncertainty reduction is currently one of the major issues of human communication studies (Gudykunst, Nishida, & Schmidt, 1989). Originally, social sciences have dealt with uncertainty in terms of order and probability (Driskill & Goldstein, 1986). From an organizational perspective, the so-called "contingency theory" suggests that complexity and change in a company's structure dictate the amount and type of information needed to cope with uncertainty. However, as Driskill and Goldstein write, "the contingency theorists were criticized for over-simplifying or ignoring the uncertainties arising from factors inside the firm" (p. 42). Much of the early research by organizational scholars on uncertainty has been conducted under the label of *environmental* uncertainty (Lawrence and Lorsch, 1967; Duncan, 1972; Downey & Slocum, 1975). However, in these studies the term *environmental* was used in the general sense to include various sources of

uncertainty in the work-place. Consequently, many of these earlier studies failed to differentiate the object or source of the uncertainty.

There have been attempts in the past to specify the source of uncertainty within the organization (e.g.*task*, Galbraith, 1974; *relational*, Berger & Calabrese, 1975; Clatterbuck, 1979; Gudykunst, 1985, and *organizational*, Holland & Stead, 1976; Huber, O'Connell & Cummings, 1975). However, even with these specifications, most research to date makes little or no attempt to compare and contrast the types of uncertainty and the communication behaviors accompanying each source of uncertainty. We feel this restriction does not allow for comparisons of various types of uncertainty and how each type subsequently affects various organizational behaviors.

There is support in the literature for such a perspective. For example, Lorenzi, Sims, and Slocum (1981) show clearly the uncertainty is a result of a combination of objective environmental stimuli, individual characteristics, and the degree of task-related specificity of the measure itself. They conclude the "if the intent of the research is to capture some reflection of the objective environment through perceptual methods, then a disaggregated view might be the most fruitful research strategy" (p. 38).

From a definitional standpoint, researchers have viewed uncertainty in a variety of ways as well. Goldhaber (1986) simply defined uncertainty as "the difference between information available and information needed" (p. 28). Lawrence and Lorsch (1967) attempted to define uncertainty as: 1) the lack of clarity of information, 2) the general uncertainty of causal relationships, and 3) a long intervening time span between events and the feedback of results. Duncan

(1972) defined uncertainty as having three components: 1) the lack of information regarding the environmental factors associated with a given decision making situation; 2) not knowing the outcome of a specific decision in terms of how much the organization would lose if the decision were incorrect; and, 3) inability to assign probabilities with any degree of confidence with regard to how environmental factors are going to affect the success or failure of the decision unit in performing its function. These definitions allow for a general classification and interpretation of uncertainty, as well as the recognition that uncertainty is multi-dimensional and multi-faceted. However, the definitions have not been consistently applied to the three types of uncertainty, nor have they provided any insight into how communication is used by organizational members at all levels to reduce it.

UNCERTAINTY REDUCING STRATEGIES

There has been considerable research attention addressing how a person uses communication to gain knowledge (e.g., Miller & Steinberg, 1975). When a person faces unpredictability, he or she strategically uses communication to restore predictability. That is, under conditions of uncertainty, people tend to develop communication strategies as coping mechanisms. Research on uncertainty reduction has established that communicative behavior is often undertaken by an individual to gain knowledge and understanding. Earlier attribution approaches (e.g., Heider, 1958; Jones & Davis, 1965; Kelly, 1973) directly related communicative behavior to knowledge gained in interpersonal relationships. While these studies primarily dealt with cognitive processes in the psychological realm rather than the behavior aspects of communication, they formulated the framework for early research on uncertainty reduction strategies.

In the intervening years, research on uncertainty reduction has been applied to a wide variety of situations in organizational and communication research. For example, Rubin and McHugh (1987) used uncertainty reduction theory to help explain the development of parasocial relationships. Other research efforts regarding uncertainty have reflected an emphasis upon rhetorical discourse (Williams, 1989), existential-phenomenology (Kleeman, 1989), and uncertainty reduction in adult children of alcoholics (Cota & Schaller, 1989). Much of this research focuses on the issue of knowledge-gaining strategies within interpersonal relationships. In addition, the research by Falcione and Wilson (1988), Jablin (1987), Lester (1987) and Smircich and Calas (1987) reflected issues such as socialization processes, organizational environments, and culture. Regardless of the nature of uncertainty,the literature suggests that under conditions of uncertainty, people will develop communication strategies to reduce uncertainty.

Recognizing that people will establish communication strategies for uncertainty reduction, two general classes of strategies have emerged in uncertainty reduction theory: Action-type strategies and Inaction-type strategies. With respect to these two broad classifications of strategies, three separate perspectives have been underscored in the literature. Each deals with different types of uncertainty.

Hannaway (1985) postulated two competing theoretical perspectives of coping with uncertainty (Inaction- and Action-type). In the action-type strategies, uncertainty results in assertive or initiating behavior. As uncertainty increases, the felt need to reduce the uncertainty also increases. As a result, the individual initiates various types of assertive behavior to control or define the situation and manage or reduce the uncertainty which exists. On the other hand, the inaction-type is that

which does not lead to any initiation, but rather results in avoidance behavior which attempts to minimize the effects of uncertainty on the individual. Within the organization, this avoidance can take more than one form. One form relies on programmed responses thereby avoiding consideration of alternatives (e.g., rituals, Abelson, 1976; habitualization, Berger & Luckman, 1967), and the other form involves an individual engaging in activities at the initiation of others. Simply, by having someone else define the parameters of the problem, an individual is able to avoid sole responsibility for the outcomes (Hannaway, 1985).

A second major perspective of uncertainty reduction strategies was developed by Berger (1979). In an earlier work, he provided the groundwork for three general categories of knowledge-gaining strategies which might be used by a person to reduce uncertainty about another individual: two of which are action-type strategies, and one is an inaction-type strategy. Unlike the Hannaway (1985) study, these strategies specify a "target" person, or the source of the uncertainty by which the information is to be gained. These three general categories include: *passive*, *active*, and *interactive* strategies. When using a *passive* strategy, a person will simply observe another person in order to reduce uncertainty about that individual (Inaction-type). There is no "search" behavior involved. On the other hand, the *active* strategy entails asking third parties about a person in an attempt to reduce the uncertainty which may exist (Action-type). Finally, in the *interactive* strategy, a person interacts directly with the person who is the object of the uncertainty (Action-type).

A third perspective of uncertainty reduction strategies conceived by Rummelhart (1983) reflects a process very similar to Berger's (1979) strategies of

dealing with uncertainty. Rummelhart (1983) indicated that individuals will employ certain interaction strategies when traditional interpretative procedures are undependable. She identified two primary strategies which people employ: *Defensive* (Inaction-type) and *Offensive*. (Action-type) Under the *defensive* strategy, the person says as little as possible (e.g. silence, minimal yes or no answers, literalness in response, plea of ignorance). Conversely, *offensive* strategies are characterized by the individual who makes an active attempt to force interaction with others to seek information to reduce uncertainty (e.g. saying something that sounds right, elaboration, aggressiveness).

THE HIEARCHICAL ELEMENT

Axiomatic to organizational research has been the notion of uncertainty and its effects throughout the entire organization and its members. For example, Brown (1966) extended the discussion of Parson's Taxonomy of decision-making (e.g., institutional, managerial, and technical levels), by describing the kinds of information sought at each level. Moreover, Hannaway (1986) suggested a link between hierarchy and uncertainty and subsequent reduction strategies in her study of managers. She concluded that the findings of her study "support the contention that uncertainty affects managers differently depending on their hierarchical position in the organization" (p. 1098). Traditionally, many have argued for the importance of the social environment in understanding organizational behavior. This "environment" is a function of various positions within the organization and are arranged in hierarchical order. Within these various positions are differences in status, control, and proximity to information networks. It is expected that these hierarchical differences may result in variation in information-gaining strategies.

Hannaway (1985) presented three factors of the hierarchy which may affect uncertainty reducing strategies by employees and supervisors: communication rules, acceptance of risk, and proximity to information flow.

The first factor pertains to the excessive reliance on programmed responses or "rules" by employees as compared to supervisors. In earlier research, Crozier (1964), argued that conformity to rules protects an individual against risks of failure and possible arbitrary treatment from superiors. Under conditions of uncertainty, individuals who are insecure in their work relationships are believed to be less search-oriented. Conversely, individuals who are more secure would tend to be more assertive (Hannaway, 1985). Historically, communication scholars have acknowledged the existence of rules within organizations as a means of governing conduct and actions of its members (Farace, Monge, & Russell, 1977). Additionally, Tompkins (1984) outlined four types of rules which shaped communication within the organization (e.g., hierarchical, task, work-group, individual). In one form or another, each type may affect differently the knowledge-seeking behaviors (uncertainty reduction strategies) of supervisors and employees.

The second factor that may explain the differences in organizational behavior under conditions of uncertainty is the element of risk in engaging in knowledge-gaining activities. Certainly, the clarity of information available regarding a manager's work performance versus an employee's work performance differs. The problems faced by supervisors are usually complex enough that it becomes difficult to determine the impact of a single person on a particular problem. On the other hand, problems faced by employees are normally simpler and more

differentiated and is therefore easier to identify a responsible individual (Hannaway, 1985). As a rule, supervisors are generally thought to have performed well in the past. One or two occasions of bad judgment would probably not have much effect on these individuals when compare to an employee (Hannaway, 1985). Consequently, supervisors may behave differently under conditions of uncertainty because they can usually "afford" more risk. Also, on the part of an employee, aggressive information-gathering may be perceived by them as being not encouraged. As Adler (1986) pointed out, "Many bosses are members of the 'I talk, you listen' school of management" (p.32). Therefore, given the presence of such risk, whether perceived or real, employees may be reluctant to enter into action-type strategies and may subsequently rely on inaction-type strategies.

Finally, the third factor that may result in information-seeking behavior variations between hierarchical groups are the differences in proximity to the communication networks within the organization. Formal, informal networks, and the relationship roles within those networks have been the focus of much research over the years (e.g., Goldhaber, 1986, Pace & Faules, 1989). The access to organizational information such as policy changes, procedures, etc., could affect the nature of uncertainty experienced, as well as the strategies selected. Certainly, those who are closest to the information source (e.g., supervisors would differ from those farthest from the source (e.g., employees). In addition, those who are in supervisory and managerial positions may create such messages which in turn increases employee uncertainty levels regarding the organization.

Therefore, it is expected that the hierarchy creates a situation whereby supervisors would tend to be more assertive or active in their uncertainty reducing

strategies than employees. As such, this investigation focuses upon two research questions:

RQ1 Do organizational members report significantly different levels of task, organizational, and relational uncertainty as a function of their hierarchical position?

RQ2 Do organizational members across hierarchical levels utilize different communication strategies to reduce task, organizational, and relational uncertainty?

METHOD

Subjects

The subjects included a combined total of 105 employees and supervisors of a local restaurant franchise in the midwest. The company had recently undergone several organizational changes due to the sale of a major portion of its franchise to a national corporation. Of the 105 surveys distributed, 63 were returned. Two were omitted because of incomplete data. As a result, 61 surveys were included: 25 part-time employees, 24 full-time employees, and 12 supervisors.

Measures and Procedures

The survey for the study contained three parts: uncertainty scales, communication strategies, and demographics. The first portion contained 14 items regarding organizational, task, and relational uncertainty. Using an instrument specification table with criteria derived from the earlier works of Duncan (1972) and Clatterbuck (1979), the items were generated to reflect the various types of uncertainty discussed earlier. Reliability coefficients on these items range from .88 to .93.

In the second portion of the instrument, respondents were presented with three situations regarding each of the various types of uncertainty (e.g., task, relational, and organizational). Respondents were then asked how they would likely utilize each of the four communication strategies: two options were Action-type and two options were Inaction-type. To establish content validity on these items, nine reviewers independently placed each of the uncertainty types into one of three categories. Additionally, reviewers were asked to identify each of the strategies as either Action-type or Inaction-type. Agreement among the reviewers was .96.

The final portion of the survey identified employment status: full-time, part-time, or supervisor. In addition, this portion contained various demographic elements for possible post hoc analysis: length of time with organization and current department, sex, and age.

Approximately one week prior to the administration of the surveys, each employee was provided with a memorandum which explained the nature of the research being conducted. The surveys were then distributed to each employee with instructions and an envelope to enclose the questionnaire upon completion.

Data Analysis

The analysis of the data was performed in two parts. First, descriptive statistics compared the various levels of uncertainty types of the hierarchical groups, as well as reduction strategies utilized for each type of uncertainty (e.g., Action-type versus Inaction-type). Second, four single factor analysis of variances (ANOVAs) were used to determine the differences between groups with regard to uncertainty levels and strategies employed. (Main effects included: 1) hierarchy on

uncertainty type; 2) hierarchy on strategy selection for task uncertainty; 3) hierarchy on strategy selection for organizational uncertainty; and, 4) hierarchy on strategy selection for relational uncertainty) For each ANOVA that revealed an overall significant F statistic, the Scheffé F-test was used to compare the groups and identify the extent of the differences that may exist. Kirk (1982) stated that "The Scheffé S procedure is one of the most flexible, conservative, and robust data snooping procedures available" (p. 121). More importantly, Kirk noted that the Scheffé S procedure can be used with unequal n's and is robust with respect to violation of its normality and equal variance assumptions. A confidence level of .05 was used.

RESULTS

The means and standard deviations for the uncertainty levels for each of the various groups within the organization are presented in Table 1. As shown, supervisors reported the greatest degree of *Task Uncertainty* (13.667) while the part-time employees reported the least (10.652). In regard to *Relational Uncertainty*, part-time employees indicated a higher level of uncertainty ($\bar{X}$ = 16.174) than either full-time employees (15.125) or supervisors (15.417). Finally, full-time employees reported higher levels of *Organizational Uncertainty* (12.667) than part-time (11.435) or supervisors (11.5).

Insert Table 1 here

The means and standard deviations for Reduction Strategies (RS) for *Task, Organizational* and *Relational Uncertainty* are presented in Table 2. As reported, all three hierarchical groups were more likely to use Action-type than Inaction-type strategies to reduce *Task Uncertainty* (Supervisors: Action-type = 6.583, Inaction-type = 4.917; Full-time: Action-type = 6.542, Inaction-type = 5.542; Part-time: Action-type = 7.217, Inaction-type = 5.783)and *Relational Uncertainty* (Supervisors: Action-type = 7.667, Inaction-type = 4.167; Full-time: Action-type = 6.708, Inaction-type = 6.083; Part-time: Action-type = 7.043, Inaction-type = 5.522). At the same time, supervisors and full-time employees were more likely to use Inaction-type strategies (Manager: Action-type =6.083, Inaction-type = 7.583; Full-time: Action-type =6.458, Inaction-type = 7.042) and part-time employees were more likely to use Action-type strategies (Part-time: Action-type = 7.435, Inaction-type = 6.522) in the reduction of *Organizational Uncertainty*

Insert Table 2 here

To determine the differences in uncertainty levels and strategies employed between each of the hierarchical groups, one-way ANOVAs were computed. As reported in Table 3, there were significant differences in regard to levels of *Task Uncertainty* ($F = 4.222$; $p = .0196$). Additionally, a comparison analysis of the various groups by a Scheffe's F-test revealed a significant difference between Part-time employees and Supervisors ($F = 3.817$, $p < .05$). Other comparisons (e.g. part-time to full-time, full-time to supervisors) did not reveal significant differences

under *Task Uncertainty* and are not reported. In regard to *Organizational* and *Relational Uncertainty* levels between the three hierarchical groups, the data revealed no significant differences.

Insert Table 3 here

Next, the data examined the differences between hierarchical groups regarding the strategies employed in *Task, Organizational* and *Relational Uncertainty*. As reported in Table 4, there were no significant differences discovered in either Inaction-type or Action-type strategies used by employees or supervisors to reduce *Task Uncertainty*. Table 5 shows reduction strategies of the groups on *Organizational Uncertainty*. As indicated, there were no significant differences in regard to Inaction-type strategies used to reduce this type of uncertainty. There were however, significant differences discovered in the Action-type Strategies used by the hierarchical groups. An additional Scheffe's F-test analysis revealed a comparative significant difference between part-time and supervisors ($F = 2.011$, $p. < .05$).

There were also significant differences discovered between the hierarchical groups regarding their likelihood to utilize Inaction-type versus Action-type strategies to reduce *Relational Uncertainty* (See Table 6). Specifically, groups were different in their Inaction-type strategies ($F= 3.365$, $p = .0417$). As indicated, a comparison of full-time employees and supervisors revealed that full-time

employees were more likely to use Inaction-type strategies and supervisors less likely, resulting in a significant difference (Scheffe's F-test = 3.355, $p < .05$)

Finally, there were slightly significant differences between groups in regard to their likelihood of using Action-type strategies ($F= 2.492$, $p = .0919$). Notably, the groups found to be significantly different were again supervisors and full-time employees, with supervisors more likely to use Action-type strategies and full-time less likely (Scheffe's F-test = 2.491, $p < .05$).

Insert Tables 4, 5, and 6 here

DISCUSSION

Hierarchical Differences in Uncertainty Levels

RQ1 Do organizational members report significantly different levels of task, organizational, and relational uncertainty as a function of their hierarchical position?

In general, the findings support the contention that groups at various hierarchical levels of the organization do vary in some types of uncertainty present in the work-place. For example, when compared to the other two groups in the study supervisors were clearly the highest in levels of *Task Uncertainty* , part-time employees in *Relational Uncertainty*, and full-time employees in *Organizational Uncertainty*. The major issue becomes, "What elements of the hierarchy may be contributing to these differences?"

Supervisors reporting high task uncertainty may be best explained by the levels of task complexity inherent in managerial responsibilities as opposed to the employees' levels of task complexity. This would be consistent with the myriad of earlier studies which suggest that the nature of the task performed can have tremendous implications on organizational members and subsequent organizational outcomes (e.g., Task complexity and role differentiation, Lawrence and Lorsch, 1967).

In regard to *organizational uncertainty*, one might expect that supervisors would significantly differ in their levels from either full-time or part-time employees because of their relative position to the organizational decision-making processes. However, there were no significant differences between the three groups, although full-time employees reported the highest levels. There are several plausible explanations for these lack of differences. First, organizational uncertainty may be a function of other aspects, such as the organization's stability, adaptability, role ambiguity, structure, etc. It is assumed that many of these factors would have similar effects on all members of the organization, including supervisors.

Another possible explanation relates to the source of the organizational uncertainty as defined earlier by Duncan (1972). With regard to full-time and part-time employees, the source of the uncertainty may come from their 1) lack of knowledge about organizational decisions, and, 2) lack of information about about relevant factors surrounding an organizational decision or change. In the case of the supervisors, the source of uncertainty may be from their lack of ability to assign probabilities of the potential impact of a decision or change on the organization as a whole (1972). Duncan (1972) clearly supports the notion that it is management's

responsibility for the reduction organizational uncertainty because of their hierarchical leverage in the decision making process. Under this notion then, if a supervisors helps dictate and implement a change in policy within a particular organization, it is becomes their responsibility to assure organizational members are aware of the implications for such a change (Weinbach, 1984). Consequently, the source of supervisor's organizational uncertainty is not the change itself, but the consequences of such a change to the organization. The supervisor's concern about how employees will react in their acceptance and/or resistance to such changes, and the subsequent impact on organizational functioning may create a degree of organizational uncertainty. In essence, what we are suggesting here is that while the sources of the organizational uncertainty may be different between hierarchical levels of the organization, their reported perceived levels are relatively the same.

Finally, the *relational uncertainty* levels between the three hierarchical groups revealed no significant differences as well. However, part-time employees did report the highest levels. Significant here is not so much how they differed, but how the levels were similar. The data in the study suggest that all three groups report some degree of vertical relational uncertainty (supervisors to employees, employees to supervisors). Within relational uncertainty, however, no one group was significantly different from the other. Apparently, hierarchical position does not affect uncertainty levels in this regard.

This has implications for relational uncertainty and the supervisor-subordinate relationship. Both supervisors and subordinates bring a wide variety of personal characteristics and predispositions to their relationships. The interaction of these characteristics influences the satisfaction each person has with the other and

helps determine the overall effectiveness of the relationship (Zalabak, 1988). If both supervisors and employees are reporting high levels of relational uncertainty, what impact is this having on this important relationship? Also, from the organizational standpoint what impact does relational uncertainty have on outcomes such as relational satisfaction? Research on relational satisfaction attests to its importance to the overall development of the relationship. In fact, such relationships are said to be functional to the extent that partners experience satisfaction with that relationship (Spanier, 1976). In the organizational setting, the member's successful or unsuccessful reduction of relational uncertainty may be viewed as requisite to whether he or she will experience satisfaction with the various elements of the organizational experience, including the relationships he or she encounters (e.g., supervisor-subordinate).

Indeed, past research has established a relationship between uncertainty and relational satisfaction. Goldhaber (1986) suggests a lack of information can be an indicator of uncertainty when it is viewed as the difference between the amount of information new members perceive they receive, and how much they desire to receive. As such, an employee's perception of an inadequate supply of information has been shown to decrease overall satisfaction. Moreover, Weick (1979) argues that anything which results in the reduction of uncertainty is satisfying. Similarly, Hecht (1978) views a relationship as satisfying to the degree in which it removes uncertainty. He writes, "the insecurity associated with establishing new relationships and the satisfaction felt when the uncertainty is resolved may all be explained by this conceptualization of (relational) satisfaction" (p. 52). The results

of this study suggest the presence of relational uncertainty is universal throughout the organization.

Reduction Strategies

RQ2 Do organizational members across hierarchical levels utilize different communication strategies to reduce task, organizational, and relational uncertainty?

From the results, respondents were more Action-type than Inaction-type oriented in their strategies for reducing uncertainty, with the exception of supervisors and full-time employees using more Inaction-type strategies to reduce organizational uncertainty. This Action-type characteristic may be seen as a healthy by-product of the organization in that supervisors and subordinates can actively seek to reduce uncertainty, particularly relational uncertainty. The propensity to utilize the Action-type strategy is also consistent with other authors who have studied communication and uncertainty. For example, Galbraith (1974) found that the greater the net task uncertainty, the greater the amount of information that must be processed. Further, Berger and Calabrese (1975) indicate that uncertainty reduction posits a reciprocal relationship between amount of communication and uncertainty. Other research suggests people desire to obtain information under conditions of uncertainty (Driskill & Goldstein, 1986; Weick, 1979). From a broad perspective, the notion of uncertainty in the work-place and levels of communication frequency is well established by organizational researchers. In the early works of Lawrence & Lorsch (1967), they argue that high levels of uncertainty increase the flow of information, and subsequently increase the demands on the communication systems present in the organization. Huber,

O'Connell & Cummings (1975) note that as uncertainty increases, the frequency of messages also increases. Likewise, Whitmore and Yovits (1973) suggest "the greater the uncertainty associated with a specific observation, the greater the levels of information to be derived -- and the greater the volume of message production" (p. 226). Taylor and Utterback (1975), in their longitudinal review of communication research, posit that communication can effectively be used in the work-place to reduce uncertainty. In other words, the greater the uncertainty, the greater the information requirements. In this study, uncertainty as a whole, resulted in communication activity (e.g., action-type strategies).

In regard to hierarchical differences, each of the reduction strategies for task, organizational, and relational uncertainty was examined. Under the reduction strategies on task uncertainty, no significant differences were discovered. Despite differences found in task uncertainty, apparently the strategies employed to reduce task uncertainly are similar across groups. While all three groups were more likely to employ Action-type rather than Inaction-type strategies, no one group significantly differed from the other groups. If the nature of the task affects levels of uncertainty, as suggested earlier, then apparently the strategies used to reduce it are not a function of such tasks.

In regards to reduction strategies of organizational uncertainty, supervisors and full-time employees were more Inaction-type in their strategies while part-time employees were more Action-type. In addition it was discovered that supervisors and part-time employees differed in their used of Action-type strategies. The implications of this relates to the information networks of the organization. Scholars have recognized for some time that communication networks within an

organization develop as a result of both formal organization and informal social contact (Zalabak, 1988; Goldhaber, 1986). It is conceivable that part-time employees are "out of the mainstream" of these networks which are a valuable source of information about the organization. This alienation may translate into the inability to utilize Action-type strategies, thereby forcing them to rely on Inaction-type. Essentially, if the part-time employee is present at the organization less, the opportunity to actively seek information about organizational matters would be diminished.

The most significant implication from the present study may be in regard to hierarchical differences in strategies for relational uncertainty reduction. Supervisors were clearly more likely to use Action-type strategies than full-time or part-time employees. Even though all three groups indicated a propensity toward Action-type versus Inaction-type strategies, the differences discovered between the groups, namely supervisors and full-time employees, is notable. In a traditional sense, one would expect full-time employees to be more reticent than supervisors under conditions of uncertainty. It is the "do not speak unless spoken to" mentality present in many organizations. Much has been written on the Upward and Downward communication flow within the organization. Communication flowing from upper to lower organizational levels constitutes downward communication. Conversely, communication flowing from subordinates to superiors constitutes upward communication. Earlier studies suggest that subordinates are more willing to disclose threatening information to supervisors and expect fewer harmful consequences if they are encouraged to openly express ideas and feelings from superiors (Young, 1978). If the downward communication suggested in this study

is in the form of supervisors seeking information from their subordinates in order to reduce perceived uncertainty, then subordinates should feel compelled to reciprocate this through Action-type uncertainty reduction strategies of their own. This was not the case.

One reason for this may be that supervisors are perceiving themselves to be more Action-type in attempting to reduce uncertainty than what actually exists. Given that uncertainty is a perceived attribute (Lorenzi, Sims, &Slocum, 1975), the subsequent strategies one employs to reduce it may also be partially a function of perceptions. However, a more plausible explanation for these differences may revolve around the nature of the hierarchy.

The perceptions of the amount of likelihood to use Action-type strategies may be correct. However, even though supervisors are actively seeking to reduce uncertainty, employees are reluctant to reciprocate it for a variety of reasons. First, most employees do not feel they are encouraged to provide upward communication to management (Goldhaber, 1986). Second, role structure and the accompanying expectations are also inherent in supervisor-subordinate relationships. So long as the concept of hierarchy prevails, the issue of status and power within the role will remain potent variables affecting organizational behavior (Andrews & Baird, 1986). A number of experimental studies have investigated the nature of upward-directed communication with regard to role relations. For example, an early investigation discovered the communication directed upward was extremely cautious (Zander, 1959). More recently, Andrews and Baird (1986) write, "In every organization there are many persons who possess considerable status and power. .....A powerful organizational executive can stifle opinions contrary to his or her own and

encourage superficial analysis of problems and exploration of solutions." (p. 246). A similar phenomena may be occurring in employees reluctance to actively engaged in uncertainty reduction as compared to the levels engaged in by management.

SUMMARY

This study compared and contrasted the uncertainty levels and types reported by supervisors and employees at three hierarchical levels of the organization: first-line supervisors, full-time employees, and part-time employees. In doing so, it investigated differences in uncertainty-reduction (UR) strategies employed by these three hierarchical groups.

It was discovered that significant hierarchical differences did exist in task uncertainty, but not in organizational or relational uncertainty. In addition, it was discovered that the three groups were generally more Action-type than Inaction-type oriented in their selection of reduction strategies. There were no significant differences between groups discovered regarding strategy selection for task uncertainty. However, part-time and supervisors differed in their selection of strategies for reducing organizational uncertainty, and full-time and supervisors differed in their selection of strategies for reducing relational uncertainty.

Clearly uncertainty is a dominant force within organizations and is irrevocably linked to subsequent communication behavior throughout the hierarchy. Future studies should begin to focus on what specific elements of the hierarchy may be contributing to these differences.

NOTES

Note[1] *The Uncertainty of Uncertainty* was the title of a paper session on the topic at the Central States Communication Association Convention in Kansas City, MO, in April, 1989.

REFERENCES

Abelson, R.P. (1976). Script processing in attitude formation and decision making. In J.S. Carroll & J.W. Payne (Eds.), *Cognition and Social Behavior*, (p. 33-46). Hillsdale, J.J.: Lawrence Erlbaum.

Adler, R.B. (1986). *Communicating at work*. New York: Random House.

Andrews, P.H. & Baird, J.E. (1988). *Communication for business and the professions*. Dubuque, Iowa: Wm.C. Brown Publishers.

Brown, W.B. (1966). Systems, boundaries, and information flow. *Academy of Management Journal, 9*, 318-327.

Berger, C.R. (1979). Beyond initial interaction: Uncertainty, understanding, and the development of interpersonal relationships. In H. Giles and R.N. St. Clair (Eds.), *Language of social psychology*, (pp. 122-144). Baltimore, MD: University Park Press.

Berger, C.R. & Bradac, J.J. (1982). *Language and social knowledge: Uncertainty in interpersonal relations*. London, WC: Edward Arnold.

Berger, C.R., & Calabrese, R.J. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research, 1*, 99-112.

Berger, C.R., & Luckman, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Doubleday & Company, Inc.

Clatterbuck, G. W. (1979). Attributional confidence and uncertainty in initial interaction. *Human Communication Research, 5*, 147-157.

Cota, J.E., & Schaller, K.A. (1989). *Hooked on a feeling: Uncertainty reduction techniques in adult children of alcoholics*. Paper presented at the Central States Communication Association, Kansas City, MO.

Crozier, M. (1964). *The bureaucratic phenomenon*. Chicago: The University of Chicago Press.

Downey, K.H. & Slocum, J.W. (1975). Uncertainty: measures, research, and sources of variation. *Academy of Management Journal, 18*, 562-573.

Driskill, L.P. & Goldstein, J.R. (1986). Uncertainty theory and practice in organizational communication. *Journal of Business Communication, 23*, 41-56.

Duncan, R.G. (1972). Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly, 17*, 313-327.

Falcione, R.L. & Wilson, C.E. (1988). Socialization processes in organizations. In G.M. Goldhaber & G.A. Barnett (Eds.), *Handbook of organizational communication*, (pp. 151-170). Norwood, NJ: Ablex.

Farace, R.V., Monge, P.R., & Russell, H.M. (1977). *Communicating and organizing*. Reading, Mass,: Addison-Wesley.

Galbraith, J.R. (1974). Organization design: Information processing view. *Interfaces, 4*, 28-36.

Goldhaber, G.M. (1986). *Organizational communication* (4th ed.). Dubuque, IA: Wm.C. Brown Publishers.

Gudykunst, W.B. (1985). The influence of cultural similarity, type of relationship, and self-monitoring on uncertainty reduction processes. *Communication Monographs, 52,* 203-217.

Gudykunst, W.B., Nishida, T., & Schmidt, K. (1989). The influence of cultural, relational and personality factors upon uncertainty reduction processes. *Western Journal of Speech Communication, 53,* 13-29.

Hannaway, J. (1985). Managerial behavior, uncertainty and hierarchy: A prelude to a synthesis. *Human Relations, 38,* 1085-1100.

Hecht, M.L. (1978). Measures of communication satisfaction. *Human Communication Research, 4,* 351-368.

Heider, F. (1958). *The psychology of interpersonal relations.* New York: Wiley.

Holland, E., & Stead, B.A. (1976). Information channel source selection as a correlate of technical uncertainty in a research and development organization. *Engineering Management, 23,* 163-167.

Huber, G.P., O'Connell, M.J.,, & Cummings, L.L. (1975). Perceived environmental uncertainty: Effects of information and structure. *Academy of Management Journal, 18,* 725-740.

Jablin, F.M. (1987). *Organizational entry, assimilation, and exit.* In F.M. Jablin, L Putnam, K.H. Roberts, & L.W. Porter (Eds.), *Handbook or organizational communication: An interdisciplinary perspective* (pp. 679-740). Beverly Hills, CA: Sage.

Jones, E.E., & Davis, K.E. (1965). From acts to dispositions: The attribution process in person perception. In L Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 219-266). New York: Academic Press.

Kelly, H.H. (1973). The process of causal attribution. *American Psychologist, 28,* 107-128.

Kirk, R. E. (1982). *Experimental design: Procedures for the behavioral sciences.* Belmont: Brooks/Cole.

Kleeman, J.K. (1989). *An existential-phenomenology of uncertainty reduction on a new college campus.* Paper presented at the Central States Communication Association, Kansas City, MO.

Lawrence, P.R., & Lorsch, J.W. (1967). *Organization and environment.* Boston: Harvard University.

Leifer, R. & Huber G.P. (1977). Relations among perceived environmental uncertainty, organizational structure, and boundary-spanning behavior. Administrative Science Quarterly, 22, 235-247.

Lester, R. (1987). Organizational culture, uncertainty reduction, and the socialization of new organizational members. In S. Thomas (Ed.), *Culture and communication: Methodology, behavior, artifacts, and institutions: Selected proceedings from the fifth International Conference on culture and communication, Temple University, 1983,* (pp. 105-113). Norwood, NJ: Ablex.

Miller, G.R., & Steinberg, M. (1975). *Between people: A new analysis of interpersonal communication.* Chicago, Ill.: Science Research Associates.

Pace, R.W., & Faules, D.F. (1989). *Organizational communication* (2nd ed.). Englewood Cliffs, N.J.: Prentice Hall.

Rossi, A.M. , & Lubbers, C.A. (1988). Analysis of occupational stressors by gender and type of sample. *Wellness Perspectives, 3,* 9-15.

Rubin, R.B., & McHugh, M.P. (1987). Development of parasocial interaction relationships. *Journal of Broadcasting, 31,* 279-292.

Rummelhart, M.A. (1983). When in doubt: Strategies used in response to interactional uncertainty. Discourse Processess, 6, 377-402.

Smircich, L., & Calas, M. (1987). Organizational culture: A critical assessment. In F. Jablin (Ed.), *Handbook of Organizational Communication.* (pp. 228-263). Beverly Hills: Sage.

Spanier, G.B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38,* 15-27.

Spiker, K., & Daniels, T.D. (1981). Information adequacy and communication relationships: An empirical examination of 18 organizations. *Western Journal of Speech Communication, 45,* 342-354.

Taylor, R., & Utterback, J. (1975). A longitudinal study of communication in research. *Engineering Management, 22,* 80-87.

Tompkins, P.K. (1984). Organizational communication: A state of the art review. In C. Arnold and J. Bowers (Eds.), *Handbook of Rhetorical and Communication Theory.* (pp. 659-719). Boston: Allyn & Bacon.

Weick, K.E. (1979). *The social psychology of organizing* (2nd ed.). Reading, MA: Addison-Wesley.

Williams, D.E. (1989). *Identifying the rhetoric of uncertainty reduction*. Paper presented at the Central States Communication Association, Kansas City, MO.

Whitmore, B.J., & Yovits, M.C. (1973). Generalized conceptual development for analysis and flow of information. *Journal of the American Society for Information Science, 24*, 221-231.

Zalabak, P.S. (1988). *Fundamentals of organizational communication: Knowledge, sensitivity, skills, values*. New York: Longman.

Zander, A. (1959). Power and relations among professions. In D. Cartwright (Ed.). *Studies in Social Power*, (pp. 15-34). Ann Arbor, Michigan: Institute for Social Research.

Table 1

Means Uncertainty Levels by Hierarchical Position in Organization

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
Task Uncertainty				
Part-time	23	10.652	2.79	.582
Full-time	24	12.417	3.513	.717
Supervisors	12	13.667	2.535	.732
Relational Uncertainty				
Part-time	23	16.174	4.041	.843
Full-time	24	15.125	3.518	.718
Supervisors	12	15.417	1.975	.57
Organizational Uncertainty				
Part-time	23	11.435	1.779	.371
Full-time	24	12.667	3.293	.672
Supervisors	12	11.5	3.289	.949

Table 2

Means for Reduction Strategies between groups on Uncertainty

Group:	Count:	Mean:	Std. Dev.:	Std. Error:
		Task Uncertainty		
Inaction-type Strategy				
Part-time	23	5.783	1.906	.397
Full-time	24	5.542	1.817	.371
Supervisors	12	4.917	1.084	.313
Action-type Strategy				
Part-time	23	7.217	1.204	.251
Full-time	24	6.542	1.532	.313
Supervisors	12	6.583	1.311	.379
		Relational Uncertainty		
Inaction-type Strategy				
Part-time	23	5.522	2.213	.461
Full-time	24	6.083	2.283	.466
Supervisors	12	4.167	1.267	.366
Action-type Strategy				
Part-time	23	7.043	1.147	.239
Full-time	24	6.708	1.367	.279
Supervisors	12	7.667	.985	.284
		Organizational Uncertainty		
Inaction-type Strategy				
Part-time	23	6.522	1.755	.366
Full-time	24	7.042	1.706	.348
Supervisors	12	7.583	2.109	.609
Action-type Strategy				
Part-time	23	7.435	1.59	.332
Full-time	24	6.458	2.206	.45
Supervisors	12	6.083	1.73	.499

Table 3

Analysis of Variance for Uncertainty Levels Between Hierarchical Groups

Task Uncertainty

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	79.266	39.633	4.222
Within groups	56	525.717	9.388	p = .0196
Total	58	604.983		

Comparison:	Scheffé F-test:
Part-time vs. Supervisors	3.817*

*p < .05

Relational Uncertainty

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	13.391	6.696	.546
Within groups	56	686.846	12.265	p = ns
Total	58	700.237		

*(no significant differences)

Organizational Uncertainty

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	20.862	10.431	1.334
Within groups	56	437.986	7.821	p = ns
Total	58	458.847		

*(no significant differences)

Table 4

Analysis of Variance for Reduction Strategies between groups on Task Uncertainty

Inaction-type Strategy

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	5.958	2.979	.988
Within groups	56	168.788	3.014	p = ns
Total	58	174.746		

*(no significant differences)

Action-type Strategy

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	6.161	3.081	1.646
Within groups	56	104.788	1.871	p = ns
Total	58	110.949		

*(no significant differences)

Table 5

Analysis of Variance for Reduction Strategies between groups on Organizational Uncertainty

Inaction-type Strategy

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	9.233	4.617	1.408
Within groups	56	183.614	3.279	p = ns
Total	58	192.847		

*(no significant differences)

Action-type Strategy

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	18.151	9.075	2.534
Within groups	56	200.527	3.581	p = .0884
Total	58	218.678		

Comparison:	Scheffé F-test:
Part-time vs. Supervisors	2.011*

*p < .05

Table 6

Analysis of Variance for Reduction Strategies between groups on Relational Uncertainty

Inaction-type Strategy

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	29.473	14.736	3.365
Within groups	56	245.239	4.379	p = .0417
Total	58	274.712		

Comparison:	Scheffé F-test:
Full-time vs. Supervisors	3.355*

*p < .05

Action-type Strategy

Source:	DF:	Sum Squares:	Mean Square:	F-test:
Between groups	2	7.351	3.675	2.492
Within groups	56	82.582	1.475	p = .0919
Total	58	89.932		

Comparison:	Scheffé F-test:
Full-time vs. Supervisors	2.491*

*p < .05